## **SAPPHIRE MEADOWS** FIFTEEN-LOT SUBDIVISION WITH TWO VARIANCE REQUESTS

## STAFF REPORT FOR PLANNING BOARD

CASE PLANNER:

Tristan Riddell

**REVIEWED/** 

APPROVED BY:

Renee Van Hoven

**PUBLIC HEARINGS/** 

**MEETINGS:** 

RCPB Plat Evaluation:

September 6, 2006

RCPB Public Hearing:

September 20, 2006

Deadline for PB recommendation to BCC:

October 18, 2006

**BCC Public Meeting:** 

9:00 a.m.

November 6, 2006

Deadline for BCC action (60 working days):

December 18, 2006

**APPLICANT OWNER:** 

Elmer J. and Nadia B. Kirschten

4069 Squires Lane Stevensville, MT 59870

REPRESENTATIVE:

Gordon Sorenson Engineering, (406) 549-9693

LOCATION OF REQUEST: The property is located north of Stevensville off Stevensville Airport

Road. (Map 1)



Map 1: Location Map (Source Data: Ravalli County Planning Department)

LEGAL DESCRIPTION

OF PROPERTY:

W1/2 NE1/4 SW1/4 & NE1/4 NE1/4 SW1/4 of Section 18, T9N,

R19W, P.M.M., Ravalli County, Montana.

APPLICATION INFORMATION:

The subdivision and variance applications were determined sufficient on August 29, 2006. Agencies were notified of the subdivision and variance request and comments not included in the application are

Exhibits A-1 through A-3 of the staff report.

**LEGAL NOTIFICATION:** 

A legal advertisement was published in the <u>Ravalli Republic</u> on Tuesday, September 5, 2006. Notice of the project was posted on the property and property owners adjacent to the property were notified by certified mail postmarked August 30, 2006. No public

comments have been received to date.

DEVELOPMENT PATTERN:

Subject property

Existing house and agriculture Large lot residential/agriculture

North South

Large lot residential/agriculture

East West Agriculture

## **RAVALLI COUNTY PLANNING BOARD**

#### **SEPTEMBER 20, 2006**

# SAPPHIRE MEADOWS FIFTEEN-LOT SUBDIVISION WITH TWO VARIANCE REQUESTS

#### RECOMMENDED MOTIONS

- That the variance request from Section 5-2-2(c)(6) of the Ravalli County Subdivision
  Regulations, to allow two of the lots to access off a common access rather than an internal
  subdivision road, be *denied*, based on the findings of fact and conclusions of law in the staff
  report.
- 2. That the variance request from Section 5-2-2(a)(7) of the Ravalli County Subdivision Regulations, to allow for a flag lot, not be considered, based on the recommendation of denial of the variance from Section 5-2-2(c)(6).
- 3. That the Sapphire Meadows Major Subdivision be **approved**, based on the findings of fact and conclusions of law in the staff report and subject to the conditions in the staff report.

## RECOMMENDED MITIGATING CONDITIONS OF APPROVAL

1. A document entitled "Notifications to Future Property Owners" that includes the following notifications and the attachments listed below shall be included in the submittal of the final plat to the Planning Department and filed with the final plat:

**Notification of Proximity to Agricultural Operations**. This subdivision is located near existing agricultural activities. Some may find activities associated with normal agricultural activities objectionable and dangerous. (Effects on Agriculture)

Notification of Irrigation Ditch/Pipeline Easements. Within this subdivision there are irrigation easements. All downstream water right holders have the right to maintain and repair their ditches/pipelines and diversion structures whenever necessary to keep them in good condition. The filed subdivision plat shows irrigation ditches and easements on the property. The downstream water rights holders must approve any relocation or alteration (i.e. installation of a culvert) of an irrigation ditch or pipeline. Any act which damages or destroys a ditch, interferes with its operation or maintenance in any way, or restricts access to the ditch so as to interfere with its maintenance is expressly prohibited. The downstream water right holders have the right to use the easement to maintain the ditch or pipeline. (Effects on Agricultural Water User Facilities)

Lots within this subdivision do not currently have the right to take irrigation water out of the Bitterroot Irrigation District maintained irrigation ditch located within the subdivision. Taking water without a water right for irrigation purposes is illegal. (Effects on Agricultural Water User Facilities)

Limitation of Access onto a County Road. A "no ingress/egress" restriction is located along the Stevensville Airport Road and Ember Lane frontages of the subdivision, excepting the approach to the internal road that is approved by the Ravalli County Road and Bridge Department, which precludes vehicular access onto this County-maintained road. This limitation of access may be lifted or amended with approval of the County. (Effects on Local Services)

**Notification of Road Maintenance.** Ravalli County, the State of Montana, or any other governmental entity does not maintain the internal subdivision road and therefore does not assume any liability for improper maintenance or the lack thereof. A Road Maintenance Agreement for the internal road was filed with this subdivision and outlines what parties are responsible for road maintenance and under what conditions. (Effects on Local Services)

2. Protective covenants for this subdivision shall be submitted with the final plat that include the following provisions:

Living with Wildlife. (See letter from FWP in application packet for the required provisions) (Effects on Agriculture and Wildlife and Wildlife Habitat)

Waiver of Protest to Creation of RSID/SID. Owners and their successors in interest waive all rights in perpetuity to protest the creation of a city/rural improvement district for any purpose allowed by law, including, but not limited to a community water system, a community waste water treatment system, and improving and/or maintaining the roads that access the subdivision including related right-of-way, drainage structures, and traffic control signs. (Effects on Local Services)

Required Posting of County-Issued Addresses for Lots within this Subdivision. Lot owners shall post County-issued addresses at the intersection of the driveway leading to the primary residence and the accessing road as soon as construction on the residence begins. (Effects on Local Services and Public Health and Safety)

**Primary Heat Source.** The primary heat source for the newly constructed residences in this subdivision shall be at least 75% efficient. (Effects on Natural Environment)

Lighting for New Construction. Full cut-off lighting shall be required for any new construction within this subdivision. A full cut-off fixture means fixtures, as installed, that are designed or shielded in such a manner that all light rays emitted by the fixture, either directly from the lamps or indirectly from the fixture, are projected below a horizontal plane through the lowest point on the fixture where light emitted. The source of light is fully shielded, top and sides, so as not to emit light upwards or sideways, but only allowing light to shine down towards the subject that is to be lighted. Spotlighting of flag poles shall be permitted. (Effects on Public Health & Safety)

Control of Noxious Weeds. Lot owners shall control the growth of noxious weeds on their respective lot(s). (Effects on Natural Environment)

**Radon Exposure.** The owner understands and accepts the potential health risk from radon concentrations, which are presently undetermined at this location. Unacceptable levels of radon can be reduced through building design and abatement techniques incorporated into structures. (Effects on Public Health and Safety)

**Amendment.** The covenants filed with the final plat shall state that written Governing Body approval shall be required for amendments to provisions of the covenants listed above, that are required to be included as a condition of subdivision approval. (Effects on all six criteria)

3. The subdividers shall include an RSID/SID waiver in a notarized document filed with the subdivision plat that states the following: Acceptance of a deed for a lot within this subdivision shall constitute the assent of the owners and any successors in interest to any future

RSID/SID, based on benefit, for a community wastewater system, community water system, or upgrading roads leading to or within the subdivision, including but not limited to paving, curbs and gutters, non-motorized transportation facilities, street widening, and drainage facilities. (Effects on Local Services)

- 4. The applicants shall provide evidence that an amount per lot (to be decided by the Planning Board) has been contributed to the Stevensville School District prior to final plat approval. (Effects on Local Services)
- 5. The applicant shall provide a letter from the Stevensville Rural Fire District stating that they have provided the required 1,000 gallons per minute water supply or 2,500 gallons per lot water storage for fire protection for each lot within this subdivision. Alternatively, the applicant may provide evidence of a \$500 contribution made to the Stevensville Rural Fire District with the final plat submittal in lieu of the required water supply or water storage for fire protection. (Effects on Local Services & Effects on Public Health and Safety)
- 6. The internal subdivision roads shall be labeled as public road and utility easements on the final plat. (Effects on Local Services)
- 7. A stop sign shall be installed at the intersection of the internal subdivision road and Stevensville Airport Road, reviewed by the Road and Bridge Department, and approved by the Planning Department prior to final plat approval. (Effects on Local Services and Public Health and Safety)
- 8. The final plat shall show a no ingress/egress zone along the Stevensville Airport Road and Emerald Lane frontages of the subdivision, excepting the approach for the internal road approved by the Road and Bridge Department. (Effects on Local Services and Public Health and Safety)
- 9. All irrigation easements shall be shown on the final plat. (Effects on Agricultural Water User Facilities)
- 10. The subdividers shall provide evidence with the final plat submittal that they have applied for County-issued addresses for each lot within this subdivision. (Effects on Public Health and Safety)

#### INTRODUCTION

The Sapphire Meadows Major Subdivision is a fifteen-lot subdivision located on approximately 30.124 acres, north of the Town of Stevensville. The property has an existing home located on proposed Lot 2. Lot 2 will retain water rights from BRID. The other fourteen lots will not have water rights. Each lot will be serviced by an individual well and septic system. Lots are an average of 2 acres in size. The applicant has proposed cash-in-lieu of parkland dedication.

In conjunction with the subdivision proposal, the applicant is requesting a variance from Section 5-2-2(a)(7) of the Ravalli County Subdivision Regulations, to allow for a flag lot. The applicant is also requesting a variance from Section 5-2-2(c)(6), to allow Lots 1 and 2 to access off a common approach rather than from an internal subdivision road.

Staff is recommending denial of the variances and conditional approval of the subdivision.

## SUBDIVISION REPORT

## COMPLIANCE WITH PRIMARY SUBDIVISION REVIEW CRITERIA

## **CRITERION 1: EFFECTS ON AGRICULTURE**

Findings of Fact:

1. The property is not currently being used for agriculture.

2. There are no Prime Farmland Soils or Farmland of Statewide Importance associated with this property.

3. The property is located in an area where there is a significant amount of agricultural use. To mitigate impacts on nearby agricultural practices, a notification of agricultural operations shall be filed with the final plat and the covenants shall include a provision requiring owners to control domestic pets. (Conditions 1 & 2)

## Conclusion of Law:

With the mitigating conditions, impacts of this subdivision on surrounding agricultural practices should be minimized.

## CRITERION 2: EFFECTS ON AGRICULTURAL WATER USER FACILITIES

Findings of Fact:

1. The property has water rights held by the Bitterroot Irrigation District. According to the application, Lot 2 will retain the water rights.

2. An irrigation ditch maintained by the Bitterroot Irrigation District traverses Lots 3, 4, 13, 14 and 15 of the property. There is an existing 30-foot wide easement associated with the ditch, as shown on the preliminary plat. To mitigate impacts on agriculture water user facilities, the applicant shall show the irrigation easement on the final plat. (Condition 9)

3. To notify future property owners and mitigate potential impacts on agricultural water user facilities, a notification of the irrigation ditches and easements shall be filed with the final plat. Notification shall also be included that owners of the lots do not have the right to take water from the irrigation ditch traversing Lots 3, 4, 13, 14 and 15. (Condition 1)

4. Approval of any alterations to irrigation ditches by BRID is a requirement of final plat approval.

#### Conclusion of Law:

Impacts to agricultural water user facilities will be minimized through the recommended mitigating conditions and requirements of final plat approval.

## **CRITERION 3: EFFECTS ON LOCAL SERVICES**

Findings of Fact:

- 1. Stevensville Airport Road is a County-maintained road that provides access to the subdivision. The right-of-way for Stevensville Airport Road along the subdivision frontage is 60-feet wide. The applicant is required to pay the pro-rate share of the cost to improve the substandard portion of Stevensville Airport Road leading to the subdivision from Eastside Highway.
- 2. The internal roads will have 60-foot wide easements and meet the standards set forth in AASHTO. The Road Department has approved the preliminary plans. (Exhibit A-1)
- 3. Submittal of final grading and drainage plans, an approved road name petition for Emerald Drive, and a Road Certification, as certified by a professional engineer, are requirements of final plat approval. Installation of all infrastructure improvements is also required to be completed prior to final plat approval, which includes construction of the road and stormwater drainage facilities for Emerald Drive.

- 4. If required, a General Discharge Permit for Stormwater Associated with Construction Activity from the Montana Department of Environmental Quality shall be submitted with the final plat application
- 5. A Road Maintenance Agreement was proposed for Emerald Drive and is required to be submitted with the final plat application. A notification of the Road Maintenance Agreement shall be included in the Notifications Document. (Condition 1)
- 6. In an effort to limit access onto adjacent roads and to mitigate impacts on local services, a no ingress/egress zone shall be placed on the final plat along the Stevensville Airport Road and Emerald Lane frontages of the subdivision, excepting the approach for the internal road, as approved by the Road and Bridge Department. (Conditions 1 & 8)
- 7. In order to ensure that the public has usage of the road within this subdivision, Emerald Drive shall be dedicated as a public road and utility easement on the final plat. (Condition 6)
- 8. To mitigate impacts on local services and public health and safety, a stop sign and road name sign shall be installed at the intersection of the internal road and Stevensville Airport Road prior to final plat approval. (Condition 7)
- 9. Individual water and wastewater treatment systems are proposed to serve the lots. To mitigate potential impacts of this subdivision on any possible future public water, public sewer, and/or the road system, the RSID/SID waiver filed with the final plat shall address these systems. (Conditions 2 & 3)
- 10. Bitterroot Disposal provides services to this site.
- 11. The subdivision questionnaire indicates the parkland dedication for this subdivision is required to be 1.5 acres and cash-in-lieu of parkland dedication is proposed. Cash-in-lieu of parkland dedication shall be paid as a requirement of final plat approval. In a comment letter dated January 17, 2006, Mr. John H. Ormiston, Chairman of the Ravalli County Park Board, stated that the Park Board concurs with cash in lieu of parkland dedication (Application).
- 12. The Stevensville Rural Fire District has not provided comments, but usually recommends that the applicant provide the water supply requirements adopted under the Uniform Fire Code or a \$500 per lot contribution, which will mitigate impacts on local services and public health and safety. (Condition 5)
- 13. The applicants stated they are willing to make a contribution to the Stevensville School District, but did not specify an amount. To mitigate impacts on local services, the applicant shall contribute an amount (to be determined by the Board of County Commissioners in consultation with the Planning Board and developer) per lot to the Stevensville School District prior to final plat approval. (Condition 4)
- 14. The Ravalli County Sheriff's Office provides law enforcement services to this area.
- 15. Public services are adequate to serve this subdivision.

#### Conclusion of Law:

With the mitigating conditions of approval and requirements of final plat approval, impacts of the subdivision on local services will be minimized.

## **CRITERION 4: EFFECTS ON THE NATURAL ENVIRONMENT**

## Findings of Fact:

- 1. Individual wells and wastewater treatment systems are proposed to serve the lots. The Ravalli County Environmental Health Department has provided a checklist certifying that the applicant has provided adequate water and sanitation information (Exhibit A-2). A Certificate of Subdivision Plat Approval from the Montana Department of Environmental Quality has been provided and is required to be filed with the final plat.
- 2. To mitigate air pollution resulting from home heating emissions, the protective covenants filed with the final plat shall state that the primary heat source for any newly constructed residences must be at least 75% efficient. (Condition 2)
- 3. An approved noxious weed and vegetation control plan is required to be filed with the final plat.

According to MCA 7-22-2152, any person proposing a development that needs state or local approval and that results in the potential for noxious weed infestation with in a weed district shall notify the weed board at least 15 days prior to activity. Consequently, 15 days prior to activities requiring a revegetation plan, such as road construction, the plan shall be submitted to the weed board for approval by the board. To mitigate impacts on the natural environment, a noxious weed control provision shall be included in the protective covenants filed with the final plat for this subdivision. (Condition 2)

## Conclusion of Law:

Impacts from this subdivision on the natural environment will be minimized with the mitigating condition and requirements of final plat approval.

## CRITERION 5: EFFECTS ON WILDLIFE AND WILDLIFE HABITAT

Findings of Fact:

1. The property is not located within the FWP-identified big game winter range, nor within an area containing sensitive species.

2. To mitigate any impacts on wildlife and wildlife habitat, the covenants shall address living with wildlife, as recommended by FWP. (Application) (Condition 2)

## Conclusion of Law:

With the condition of approval, the proposed subdivision will have a minimal impact on wildlife.

## CRITERION 6: EFFECTS ON PUBLIC HEALTH AND SAFETY

Findings of Fact:

- 1. The applicant is requesting variances from the requirements that all lots are served off an internal road and for the creation of a flag lot, designed to avoid road construction, and is instead proposing a common access to serve Lot 1 and the flag lot, Lot 2. (Variances) The Road Department and Board of County Commissioners have generally preferred fewer accesses onto County-maintained roads and staff is recommending denial of the variances.
- 2. With the conditions and requirements of final plat approval, access to the subdivision will be adequate for public health and safety. (Effects on Local Services and Conditions 7 & 8)
- 3. Individual wells and septic systems are proposed for lots within this subdivision. (Natural Environment)
- 4. To mitigate impacts on local services and public health and safety, a stop sign and road name sign shall be installed at the intersection of the internal road and Stevensville Airport Road prior to final plat approval. (Condition 7)
- 5. The proposed subdivision is located within the Stevensville Rural Fire District and with Condition 5, impacts to the District will have been addressed.
- 6. To mitigate impacts on public health and safety, the subdivider shall apply for County-issued addresses for each lot and a provision requiring property owners to post County-issued addresses at their driveways shall be included in the covenants. (Conditions 2 and 10)
- 7. To mitigate the impacts of light pollution stemming from new construction, the protective covenants shall include a provision requiring full cut-off lighting with the exception of flag poles. (Condition 2)
- 8. There is a prevalence of radon in the County and to mitigate impacts on public health and safety, the covenants shall include a statement regarding radon exposure. (Condition 2)
- 9. The Ravalli County Sheriff's Office provides services to this subdivision.

#### Conclusion of Law:

The mitigating conditions and requirements of final plat approval address potential impacts of this subdivision on public health and safety.

## **COMPLIANCE WITH:**

## 1) THE SURVEY REQUIREMENTS PROVIDED FOR IN PART 4 OF M.C.A. 76-3.

## Finding of Fact:

The Seal of a Professional Land Surveyor or Engineer is required on all final plats, which states that the subdivision complies with part 4 of M.C.A. 76-3.

## Conclusion of Law:

This proposal meets the survey requirements or conditions have been required to bring the proposal into compliance.

## 2) THE LOCAL SUBDIVISION REGULATIONS PROVIDED FOR IN PART 5 OF M.C.A. 76-3.

#### Finding of Fact:

Subdivisions are required to comply with the local subdivision regulations provided for in part 5 of M.C.A. 76-3.

#### Conclusion of Law:

The developer has submitted a plan which complies with the requirements of local subdivision regulations or conditions have been required that will bring the plan into compliance.

# 3) THE LOCAL SUBDIVISION REVIEW PROCEDURE PROVIDED FOR IN THE RAVALLI COUNTY SUBDIVISION REGULATIONS

## Findings of Fact:

- 1. Subdivisions are required to comply with the local subdivision review procedure provided for in the Ravalli County Subdivision Regulations.
- 2. A decision of the governing body rejecting or approving a proposed subdivision may be appealed to the district court within thirty (30) days of such decision. The petition shall specify the grounds upon which the appeal is made. An appeal may be made by the subdivider; a landowner with a property boundary contiguous to the proposed subdivision or a private landowner with property within the unincorporated area of the county that can show a likelihood of material injury to the landowner's property or its value; a first class municipality if the subdivision is within three miles of its limits, a second class municipality if a subdivision is within two miles of its limits, a third class municipality or town if the subdivision is within one mile of its limits. An aggrieved party means a person who can demonstrate a specific personal and legal interest, as distinguished from a general interest, who has been or is likely to be specially and injuriously affected by the decision.

#### Conclusion of Law:

This development plan proposal has followed the necessary application procedure and has been reviewed within the procedures provided in Chapter 3 of the Ravalli County Subdivision Regulations.

## **CONSISTENCY WITH EXISTING ZONING AND COVENANTS**

#### Findings of Fact:

- 1. There is no existing zoning on the property.
- 2. There are no existing covenants associated with the property

## Conclusion of Law:

There are no existing covenants or zoning associated with the property

## PROVISION OF EASEMENTS FOR UTILITIES

## Finding of Fact:

According to the application, the proposed subdivision will be served by Ravalli Electric Co-op and Qwest Telephone. Utility Certificates are required for final plat approval.

## Conclusion of Law:

Utility services are available to the subdivision.

## PROVISION OF LEGAL AND PHYSICAL ACCESS

## Finding of Fact:

1. Physical and legal access to this subdivision is proposed via Eastside Highway and Stevensville Airport Road. With the denial of the variance requests, Lots 1 and 2 will access off an internal road. (Variance & Local Services)

#### Conclusion of Law:

With the conditions of approval, action on the variance requests and requirements of final plat approval, the proposal meets physical and legal access requirements.

## **VARIANCE REPORT**

## **VARIANCE REQUEST#1**

The applicant has requested a variance from Section 5-2-2(c)(6) of the Ravalli County Subdivision Regulations to allow Lots 1 and 2 to access directly off Stevensville Airport Road instead of an internal subdivision road.

## Compliance with Variance Review Criteria

1. The granting of the variance will not be substantially detrimental to the public health, safety or general welfare or injurious to other adjoining properties.

Findings of Fact:

- 1. Section 5-2-2(c)(6) requires lots within this subdivision to access off an internal road.
- 2. The Road Department typically recommends denial of this type of variance request, based on the fact that Stevensville Airport Road is classified as a minor collector roadway and the access management section of the adopted Access Encroachment Policy for the Ravalli County Road and Bridge Department. (Exhibit A-3)
- 3. With the construction of an internal road that would serve all of the lots within the subdivision, the number of proposed accesses onto Stevensville Airport Road will be reduced to one.

## Conclusion of Law:

There will be negative impacts to public health and safety by granting this variance due to the increase in accesses onto Stevensville Airport Road.

B. The conditions on which the request for a variance is based are unique to the property on which the variance is sought and are not applicable generally to other property. Finding of Fact:

The property is accessed by a County-maintained road. An internal road could be constructed to serve all lots within the subdivision.

#### Conclusion of Law:

The conditions upon which the variance is requested are not unique to the subject property.

C. Physical conditions, such as topography or parcel shape, prevents the applicant from meeting the strict letter of these regulations. These conditions shall not result from the past actions of the land's current or previous owner(s).

## Finding of Fact:

Neither physical or topographic features prevent the applicant from constructing internal roads that would serve all of the proposed lots.

## Conclusion of Law:

No physical or topographic limitations have been identified that would restrict the applicant from meeting the strict letter of the regulation.

D. The variance will not in any manner vary the provision of the zoning regulations or the Growth Policy.

#### Findings of Fact:

- 1. There is no zoning on this property.
- 2. Relevant countywide provisions in the Ravalli County Growth Policy are outlined below. Provisions of the Ravalli County Growth Policy are followed by an analysis (bulleted points) of the variance request against these provisions.

**Countywide Goal 4:** Provide necessary infrastructure and public services to accommodate population growth and new development without undue impacts on the quality, quantity and cost of service to existing residents.

**Countywide Policy 4.1:** Encourage development that will minimize or avoid additional costs to existing taxpavers.

Granting this variance would allow the subdivision to have two accesses instead of one.
 Increased numbers of accesses on Stevensville Airport Road may result in more traffic accidents. There may be costs associated with the traffic accidents through providing emergency services.

Countywide Policy 4.2: Consider the cumulative impacts of development.

• More accesses onto Stevensville Airport Road will add to traffic and may create negative impacts to public health and safety.

**Countywide Policy 4.5:** Developers will be responsible for providing the infrastructure necessary within the development such as community water, sewage treatment and roads. A system of "nexus and proportionality" will govern external infrastructure costs attributable to the developer.

The developer is responsible for providing an internal road that would serve all of the
proposed lots. An internal road would create fewer impacts to the road system, which
would contribute to the maintenance of the existing infrastructure.

## Conclusions of Law:

- 1. Zoning does not apply to this property.
- 2. The Growth Policy does not support the granting of this variance.

## E. The variance will not cause a substantial increase in public costs.

## Finding of Fact:

There may be costs associated with providing emergency services for traffic accidents resulting from increased accesses onto Stevensville Airport Road.

#### Conclusion of Law:

Approval of the variance request has the potential to increase public costs.

#### **VARIANCE REQUEST #2**

The applicant requested a variance from Section 5-2-2(a)(7) of the Ravalli County Subdivision Regulations to allow for a flag lot (Lot 2) that if not designed as a flag lot would likely have resulted in additional road construction. Staff is recommending denial of the variance request from Section 5-2-2(c)(6), and in conjunction with denial of the first variance request, this variance request can not be granted.



# ROAD AND BRIDGE DEPARTMENT.

244 Fairgrounds Road Hamilton, Montana 59840 Tele: 406.363.2733 · Fax: 406.363.6701 AUG 2 1 2006 IC-06-08-1318 TML

Ravalli County Planning Dep.

EXHIBIT A-1

DATE

21 AUGUST 2006

ТО

RAVALLI COUNTY PLANNING DEPARTMENT

FROM

DAVID H. OHNSTAD, COUNTY ROAD SUPERVISOR

SUBJECT

SAPPHIRE MEADOWS PRELIMINARY DESIGN REVIEW

Attached please find analysis and comment from the Ravalli County consulting engineers relative to the preliminary design submittal for the proposed Sapphire Meadows subdivision. The Road & Bridge Department will approve this preliminary design, with the understanding and expectation that those issues identified in the consulting engineer's report of 20 April 2006 will be addressed appropriately and completely through the final design process, specifically; Item #4 of the Roadways section - an approach permit is required for any access, or change to an existing access, onto a county-operated roadway; Item #5 - the Planning Department is requested to review the "flag lot" issue for compliance with the subdivision regulations; and Items #1 and #3 of the Storm Drainage section - the project owner shall demonstrate that stormwater will be effectively managed on-site and will conform to DEQ stormwater management regulations.





## ENGINEERING SURVEYING PLANNING

3021 Palmer • P.O. Box 16027 • Missoula, Montana 59808-6027

(406) 728-4611 FAX: (406) 728-2476

wgmgroup.com

DATE:

August 7, 2006

TO:

David Ohnstad, Ravalli County Road & Bridge Department

CC:

Gordon Sorenson, Gordon Sorenson Engineering

FROM:

Jonathan L. Gass, P.E.

RE:

Sapphire Meadows Preliminary Review Completion

WGM Group Reference No. 06-03-07

On behalf of the Ravalli County Road and Bridge Department (RCRBD), we have completed our preliminary review of the above referenced project. Adequate road, grading, and drainage information has been submitted for the project. If the RCRBD is in concurrence with our review, please forward this letter to the Planning Office to be included with the full subdivision application.

A Preliminary Comment Memorandum was sent to the design engineer in accordance with Step 6 on the RCRBD's "Schedule of Activities – Processing & Coordination of Subdivision Projects" form. We are now sending this letter to your office in accordance with Step 7 of the RCRBD's Schedule of Activities to complete our preliminary review of the project.

We have included a copy of the following with this letter:

1) Preliminary comment memorandum from WGM Group.

2) Preliminary comment response letter from Gordon Sorenson Engineering.

3) Revised copy of the Schedule for Roadway Design submitted by Gordon Sorenson Engineering in response to our comments.

4) Storm water discharge calculations submitted by Gordon Sorenson Engineering in response to our comments.

This review is based on the 2004 version of the AASHTO Geometric Design of Highways and Streets, the 2001 version of the AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<400), and the Ravalli County Subdivision Regulations.

Review of the plans and reports are limited to general conformance with the Ravalli County Subdivision Regulations in place at the time the subdivision application was submitted. This is not a complete or comprehensive review of the design assumptions or conclusions of the design professional who submitted the plans and reports. A final set of construction plans will need to be submitted by the developer for review by the RCRBD prior to beginning construction.

Thank you for the opportunity to work with the Ravalli County Road Department. If you have any questions, please contact our office.



3021 Palmer • PO Box 16027 • Missoula, MT 59808-6027

Phone: (406)728-4611 Fax: (406)728-2476 www.wgmgroup.com

DATE:

April 20, 2006

TO:

Gordon Sorenson, Gordon Sorenson Engineering

CC:

David Ohnstad, Ravalli County Road & Bridge Department

FROM:

Jonathan L. Gass, P.E.

RE:

Sapphire Meadows Preliminary Review Comments

On behalf of the Ravalli County Road and Bridge Department (RCRBD), our office has completed a review of the preliminary grading and drainage plans and reports submitted by your office. This review memorandum is part of Step 6 on the RCRBD's "Schedule of Activities – Processing & Coordination of Subdivision Projects" form. This review is based upon the Ravalli County subdivision regulations, the 2004 version of the AASHTO Geometric Design of Highways and Streets and the 2001 version of the AASHTO Guidelines for Geometric Design of Very Low-Volume Local Roads (ADT<400).

Based on our review, we have the following comments.

## Roadways

- 1) AASHTO references are not listed on the Schedule for Roadway Design. Please provide complete schedules showing the appropriate AASHTO references. Because there are no horizontal curves and the road grades are consistent at less than 3%, these references can be provided on the road schedules submitted for final road design review. References listed on the Schedule for Roadway Design submitted with the final design plans must reference the current AASHTO edition, 2004.
- 2) The pavement design section of the Schedule for Roadway Design does not have a detailed pavement design. The pavement section shown on the road plan is sufficient for preliminary design, however, a pavement design in accordance with current regulations will be required for the review of the final plans prior to construction.
- 3) The proposed road width of 18' does not allow for on-street parking. "No Parking" signs will need to be shown on the final design plans to be installed in accordance with the Manual for Uniform Traffic Control Device. If parking is to be accommodated, a wider road will need to be provided.

- 4) Please provide a copy of the Ravalli County approach permit for the intersection of Emerald Drive and Stevi Airport Road. Attached for your reference is a copy of the Ravalli County Road and Bridge Department's Access Encroachment Policy.
- 5) Ravalli County Subdivision Regulations state the following: "5-4-4 (f) Roads Along Adjoining Property. Roads within the external boundaries of the subdivision which provide access to one or more subdivision units in the subdivision shall not be located along the perimeter of the subdivision without the expressed written consent of the adjoining property owner unless the road is hard-surfaced." Please provide confirmation from the Ravalli County Planning Department and the Ravalli County Road and Bridge Department that the access to Lot 2 is not required to be hard-surfaced, or revise the preliminary plans to satisfy this regulation.

## Storm Drainage

- 1) The storm drain report states that the roads are designed to average 1-1/2 feet above natural grade so there will not be a continuous ditch section and runoff will sheet drain onto the lots. The grading plan shows that runoff from the east side of Emerald Drive will concentrate at the southeast corner of the Emerald Drive/Ruby Court intersection, pass through a culvert, and flow along the south side of Ruby Court to Lots 7 and 8. Please address the concentrated flows at these locations.
- 2) The drainage report states landscaping and lawns will retain and infiltrate all the increased runoff except that which will be directly diverted to a retention basin from the streets and driveways from Lots 1 and 12-17. Sapphire Meadows is shown to be a 15-lot subdivision. Please revise the drainage report to address this discrepancy.
- 3) The Ravalli County Subdivision Regulation 3-2-16 (b) states that grading plans be prepared in accordance with DEQ Circular 8. Several items required by DEQ Circular 8 are not address in the drainage report. These items include offsite drainage, locations of well and drainfields within 200', closed basin retention ponds designed for a 24-hour rainfall event, test pits within the boundaries of a proposed closed basin, and designs for roadway drainage structures (culverts). Please revise the drainage report to addressing the items required by DEQ Circular 8.

Please respond to these comments as outlined in Step 6 of the "Schedule of Activities – Processing & Coordination of Subdivision Projects" from the RCRBD, or send us notification to submit these comments to the Ravalli County Planning office for submittal with your subdivision application to the Planning Board. Thank you.



Gordon E. Sorenson, PE PLS Registered Land Surveyor Charles D. Conklin, PLS Registered Land Surveyor

June 16, 2006

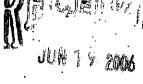
Jonathan Gass, P.E. WGM Group. Inc. PO Box 16027 Missoula MT 59808-6027

Re: Sapphire Meadows Preliminary Review Comments Your memo April 20, 2006

Dear Mr. Gass:

This is my reply to your memo to me dated April 20, 2006. My replies are in numerical reference to your comments.

- 1. Attached is a revised Schedule for Roadway Design listing references to the latest edition of the ASSHTO publications.
- 2. Please advise what is entailed in a "detailed pavement design" that is in accordance to current regulations. We will attempt to provide such a design with the final design after we understand what is the current regulation.
- 3. "No Parking" signs will be shown on the final design plans for all streets.
- 4. It is hoped that the approach permits need not be attained until such time that thee is a Conditional Preliminary Approval of the subdivision. Until that time there is not an assurance that an approach will be needed. Further the Ravalli county Road and Bridge Department Policy on Access Encroachment did not become effective until January 27, 2006. This subdivision application was hand delivered to the Ravalli County Planning Department on December 15, 2005. The Planning Department did not complete their initial 10-day review for sufficiency until March 23, 2006. I feel this application is grandfathered ahead of the Policy on Access Encroachment. Nevertheless, we will apply for an approach permit in the finality of the project, complying with the regulations.
- 5. The road leading into Lot 2 is not a road, but rather the stem portion of a flag lot. As such, it is an integral part of the lot, being used for a private driveway. It no way offers any easement or other form of access rights to adjoining properties. The use of it as a driveway will not be a new use, so the creation of dust or other nuisance will not be new. This driveway has existed since 1976 and has been in constant use as such for all of these 30 years.



## Storm Drainage:

- 1. There will be no concentrated gathering of storm runoff as spoken about in your letter. The streets will sheet rain onto the lots, the lots, and most surely the fronts will be lawned and landscaped, retaining more water than in the predevelopment condition of pasture alfalfa and grass. The land and the streets have very slight slopes and grades. I know from experience that land at less than 3% slopes do not yield storm runoff when there is a good grass cover. I have for 20 years lived on a street with similar topography, and even though the street has a grass swale, there has never been storm water in it. Storm drainage simply is not an issue with this property.
- 2. You must have a very preliminary copy of the storm water discharge calculations. The final calculation prepared on April 3, 2006, has no mention of retention ponds or any reference to lot numbers. I am enclosing a copy of the Storm Water Discharge Calculation as currently in my records.
- Please refer to any of the preliminary drawings. This property, even though lying on relatively flat ground, is surrounded on the west, south and east by irrigation ditches. There is no chance for off-site drainage to enter upon the 30 acres being subdivided,

There are no wells or drainfields within 200 feet of the property, other than the existing facilities on Lot.

Other than the irrigation ditch crossings and an approach culvert there are no other culverts planned for the roads, nor are there any retention ponds planned.

Please conclude your preliminary review as soon as possible. Any remaining deficiencies hopefully can be handles in the final design.

Sincerely,

Gordon Sorenson, PEPLS

cc: Joe and Nadia, 4069 Squires Lane, Stevensville MT 59870 Ravalli County Planning, 215 South 4<sup>th</sup> Street, Ste. F., Hamilton MT 59840

## RAVALLI COUNTY ROAD & BRIDGE DEPARTMENT

## SCHEDULE FOR ROADWAY DESIGN SUBMITTAL

DATE June 16,7006 PROJECT DESIGN BY GOTAL	on SORENSON					
PROJECT NAME SAPPHINE MEADOWS	PRELIM DESIGN 🗶					
ROADWAY NAME EMERALE DRIVE	FINAL DESIGN					
STATION (OR LOCATION) FROM O 114 TO 9+17						
PROPOSED DESIGN	REFERENCE					
DESIGN ADT % TRUCKS //6	ITE TRIP GENERATION 643 Ed. Pg 263 AASHTO GREEK					
DESIGN SPEED 25 POSTED SPEED 25	89 422					
FUNCTIONAL CLASSIFICATION RURAL MINOR ACCESS	P9 6					
TERRAIN - FLAT X ROLLING MOUNTAINOUS	ARSHTO GREEN Pg 422					
GEOMETRIC - ALIGNMENT						
HORIZONTAL CURVATURE - MINIMUM RADIUS 1/A	·					
MAXIMUM DESIGN GRADE 2 %	EX 6.4 AASHTO GREEN P9 422					
MINIMUM STOPPING SIGHT DISTANCE 366 Er	EX6.2 ARHTO GREEN P9 422					
VERTICAL CURVATURE  CREST K VALUE /// SAG K VALUE ////						
SUPER-ELEVATION (%) //A						
INTERSECTION DESIGN PLAIN T	EXA. 9.5 ASSHTO CAREEN PG 560					
INTERSECTION CASE TYPE CASE B STOP Control	AS94TO GREED PG 560					
SIGHT TRIANGLE DISTANCE - A)B)	EXB9.55 Ext. 9.58 GREEN P9661/664					
EASEMENT WIDTH	164. 6.5 pg 4.75					
ROADWAY WIDTH - PAVEMENT 18 SHOULDER 2						
PARKING PROVIDED / ALLOWED - YES NO X						
BICYCLE / PEDESTRIAN FACILITIES - YES NO_X	·					

# RAVALLI COUNTY ROAD & BRIDGE DEPARTMENT

## SCHEDULE FOR ROADWAY DESIGN SUBMITTAL

DATE June 16,2006 PROJECT DESIGN BY Gora	on SORENSON					
PROJECT NAME SAPPHINE MEADOWS	PRELIM DESIGN 🗶					
ROADWAY NAME Ruby Court	FINAL DESIGN					
STATION (OR LOCATION) FROM 0+50 to 9+00						
PROPOSED DESIGN	REFERENCE					
DESIGN ADT % TRUCKS 41%	ITE TRUP GENERATION 69 Ed. Pg 263					
DESIGN SPEED 25 POSTED SPEED 25	ARSHTO GREEK 19422					
FUNCTIONAL CLASSIFICATION RURAL MINOR ACCESS	P9 6					
TERRAIN - FLAT X ROLLING MOUNTAINOUS	AASHTO GREEN Pg 422					
GEOMETRIC - ALIGNMENT	-					
HORIZONTAL CURVATURE - MINIMUM RADIUS //A						
maximum design grade 2 %	EX 6.4 AASHTO GREEN PT 422					
MINIMUM STOPPING SIGHT DISTANCE 366 FF	EXG.ZAXHTO GLEEN P9 422					
VERTICAL CURVATURE  CREST K VALUE ///A / SAG K VALUE ////A						
SUPER-ELEVATION (%)						
INTERSECTION DESIGN PLAIN T	EXA. 9.5 ASSHTO GREEN PG 560					
INTERSECTION CASE TYPE CASE B STOP Control	AS94TO GREED PG 560					
SIGHT TRIANGLE DISTANCE - A)B)	EXB9.55 Ext. 9.58 GREEN P9661/664					
EASEMENT WIDTH 60'	ASSHTO GREEN ECH. 6.5 pg 475					
ROADWAY WIDTH - PAVEMENT 18 SHOULDER 2						
PARKING PROVIDED / ALLOWED - YES NO X						
BICYCLE / PEDESTRIAN FACILITIES - YES NO_X	·					

## STORM WATER DISCHARGE CALCULATIONS

Joe and Nadia Kirschten.; developing SAPPHIRE MEADOWS Ravalli County, Montana

#### General description of the project:

- A. There is 30.12 total acres all in developed lots, the roads included in the lot acreages, being easements
- B. The developed land generally slopes from southeast at a 2% to 3% slope.

The 10-year 1-hour between Florence and Stevensville, Montana on the east side of the Bitterroot River will yield 0.45 inches of rain water. The source of this data is from the NOAA Atlas 2, "Precipitation Atlas of the Western United States, Volume 1, Montana". The 10-year 24-hour storm was adjusted to a 1-hour storm as per the adjustment relationship illustrated in Figure 18.8.2; 'Relationship between standard storm parameters and ratio of 1 hour to corresponding 24-hour rainfall depth', as published in Handbook of Hydrology by David R. Maidment – 1992.

10-year 24-hour storm produces 1.8 inches of rainfall (NOAA Atlas 2, Vol. 1) Transposition adjustment as per Maidment is 25%

#### **CALCULATIONS:**

Pre-development storm runoff from the parcel being subdivided for a design storm of a 10-year frequency and a 1-hour duration would be as follows:

Area = 30.12 acres.

Runoff C = 0.30

Storm yield = (30.12) (0.45/12) (43,560) (0.30) (7.46) = 111,608 gallons per hour

## I. Calculated increases in runoff:

A. Driveways: 14 new driveways averaging 16 feet wide and 50 feet long, gravel surface, C of 0.80 which an increase of 0.50 over natural runoff. Total surface area = 11,200 sf = 0.257 acres INCREASED RUNOFF = (11,200) (0.45/12) (0.50) (7.46) = 1,567 gallons per 1-hour storm

**B. Roofs, patios and etc.:** 14 new sites each @ 3000 sf at a C of 0.90 which is an increase of 0.60 over natural runoff. Total surface area = 42,000 sf = 0.964 acres

INCREASED RUNOFF = (14) (3,000) (0.45/12) (0.60) (7.46) = 7,050 gallons per 1-hour storm C. Street: There will be 1,395 feet of new street built with paved width of 18 feet and a 2 foot gravel shoulder on each side, 22 feet of total width, with a C = 0.90, which is an increase of 0.60 over natural runoff. Total surface area = 30,690 sf = 0.704 acres

INCREASED RUNOFF = (1,395) (22) (0.45/12) (0.60) (7.46) = 7,200 gallons per 1-hour storm Total increase in storm runoff for the 10-year 1-hour storm is 15,817 gallons

Total area of improved (hard surface) areas is 1.925-acres, which is 6.4% of the total 30.12-acre area of the subdivision (ARM 17.36.310(3)(c).

## II. Calculated decreases in runoff:

## A. Landscaped and lawn area:

Each lot is assumed to have 1-acre of lawn and landscaping around the house. This will have a runoff coefficient of 0.10 which is a decrease of 0,20 from the undeveloped state. DECREASED RUNOFF = (15) (43,560) (0.45/12) (0.20) (7.46) = 36,558 gallons of less runoff during a 10-year 1-hour storm event

## B. Remainder Drainage Area:

The remainders of the area will likely remain hay and pasture, as prior to development.

## STORM WATER DISCHARGE CALCULATIONS

Kirschten; developing

SAPPHIRE MEADOWS SUBDIVISION

Ravalli County, Montana,

April 3, 2006

Page 1 of 2

#### NET EFFECT OF STORM RUNOFF:

The overall area of the subdivision will have a lesser tendency to produce storm water discharge from its' premise after development than before due to the fact that with added lawn and landscaping the surface will be better enabled to retain storm waters on the property for ultimate infiltration and evaporation, a situation that already exists.

The landscaping and lawns will retain and infiltrate all the increased runoff with a safety factor of 231%.

The streets are designed to average 1-1/2 feet above natural grade and as such there will not be a continuous ditch section, resulting in the storm drainage from the street to sheet drain onto the lots and be infiltrated into the landscaping and lawns.

#### **MITIGATION FOR A 100-YEAR STORM:**

A 100-year storm will yield 0.70 inches of rain (NOAA Technical Paper No. 49 & Maidment). This amounts to a 55% increase in the yield of a 1-hour 100-year storm over a 10-year storm (24,516 gallons of increased runoff vs. a decrease of 36,558 gallons, still a safety factor of 149%). There is no need to mitigate the 100-year storm event.

門の場所	Si	JBDIV	ISIO	NAPPLICATION PACKET CHECKLIST - Water and Sanitation Information Per MCA76-3-622					
Name of Subdivision: Supplied Name of Subdivision:									
Subdivider/Landowner/Name(s): The MANIE KIRSHTAN									
Gonsultant Name Gordon Seren Son									
			ATT. K	Sufficiency;Review,DuelDate:					
13	<b>建筑线</b>	No.	羅拉索 品						
(1)Unless the land division is excluded from review under 76-4-125(2), the subdivider shall submit to the information listed below for									
proposed subdivisions that will include new water supply or wastewater facilities.									
L	4		1	Provide two copies of the following information with a check paid to RCEHD for their \$50.00 sufficiency review fee.					
L			<u> </u>	(a)Vicinity Map or Plan					
				(i) The location, within 100 feet outside of the exterior property line of the subdivision and on the proposed lots, of:					
r				(A) flood plains					
-	-			(B) surface water features					
	7			(C) springs					
ĺ	7			(D) irrigation ditches					
	-			(E) existing, previously approved, and, for parcels less than 20 acres, proposed water wells and wastewater treatment systems					
		"		(F) for parcels less than 20 acres, mixing zones identified as provided in subsection (1)(g);					
				(G) the representative drainfield site used for the soil profile description as required under subsection (1)(d)					
				(ii) The location, within 500 feet outside of the exterior property line of the subdivision, of public water and sewer facilities					
				(b) A description of the proposed subdivision's water supply systems, storm water systems, solid waste disposal systems, and wastewater treatment systems, including whether the water supply and wastewater treatment systems are individual, shared, multiple user, or public as those systems are defined in rules published by DEQ.					
		-		(c) A drawing of the conceptual lot layout at a scale no smaller than 1"= 200' that shows all information required for a lot layout document in rules adopted by the DEQ pursuant to 76-4-104.					

Maule

Application 1 across consistency and a second consistency are					
Yes.	No	NJA	iltem 🦸 🔞	Additional information/Staff.comments	
./	•		(d) Evidence of suitability for new onsite wastewater treatment systems that, at a minimum, includes:		
			(i) A soil profile description from a representative drainfield site identified on the vicinity map, as provided in subsection (1)(a)(i)(G), that complies with standards published by DEQ.		
			(ii) Demonstration that the soil profile contains a minimum of 4 feet of vertical separation distance between the bottom of the permeable surface of the proposed wastewater treatment system and a limiting layer.		
1			(iii) In cases in which the soil profile or other information indicates that ground water is within 7 feet of the natural ground surface, evidence that the ground water will not exceed the minimum vertical separation distance provided in subsection (1)(d)(ii);		
/			(e) For new water supply systems, unless cisterns are proposed, evidence of adequate water availability:		
7	1		(i) obtained from well logs or testing of onsite or nearby wells;		
1	1		(ii) obtained from information contained in published hydrogeological reports; OR		
	1		(iii) as otherwise specified by rules adopted by DEQ pursuant to 76-4-104;		
-			(f) Evidence of sufficient water quality in accordance with rules adopted by DEQ pursuant to 76-4-104;		
			(g) A preliminary analysis of potential impacts to ground water quality from new wastewater treatment systems, using as guidance rules adopted by the board of environmental review pursuant to 75-5-301 and 75-5-303 related to standard mixing zones for ground water, source specific mixing zones, and nonsignificant changes in water quality.	The preliminary analysis may be based on currently available information and must consider the effects of overlapping mixing zones from proposed and existing wastewater treatment systems within and directly adjacent to the subdivision. Instead of performing the preliminary analysis required under this subsection (1)(g), the subdivider may perform a complete	
				nondegradation analysis in the same manner as is required for an application that is reviewed under Title 76, chapter 4.	

Where high traffic volumes exist on the county roadway, or substantial increases in traffic are anticipated, accesses should be separated by a minimum of 900 feet.

## B) MINOR COLLECTOR ROADWAYS

## PRIVATE DIRECT ACCESS

No more than one access shall be permitted or provided to an individual parcel, or contiguous parcels under the same ownership, unless it is demonstrated that 1) the additional access would not compromise the safety of county roadway users or the operation of the county roadway, 2) allowing only one access for the parcel would conflict with established local safety regulations, and 3) that the additional access would not be detrimental to the public health and safety.

## SEPARATION OF ACCESSES

All private accesses, intersecting public roadways and other direct access to minor collector county roadways shall be separated by a minimum of **300** feet.

## C) LOCAL ACCESS ROADWAYS

## PRIVATE DIRECT ACCESS

One direct access to a county roadway will be permitted or provided to each individual parcel, or to contiguous parcels under the same ownership, when it is demonstrated that the access will not create safety or operational concerns and the separation of the accesses is consistent with the requirements of this policy.

## SEPARATION OF ACCESSES

All private accesses, intersecting public roadways and other direct access to any local access county roadway shall be separated by a minimum of **150** feet.

## SECTION IV DESIGN STANDARDS & SPECIFICATIONS

All private access onto Ravalli County roadways shall be designed and located in conformance with the standards established in this policy. The design of all accesses shall be consistent with the adopted roadway design standards. The OWNER shall alone be responsible for ensuring compliance with these standards.

Ravalli County has adopted AASHTO standards for the design of roadways. All work performed and all materials installed within Ravalli County rights-of-way shall conform to the MONTANA PUBLIC WORKS STANDARD SPECIFICATIONS.

Any access that is not constructed in conformance with these standards **will not be approved**. The OWNER shall be alone responsible for ensuring that all installations are designed and constructed in conformance with these standards.